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ABSTRACT

The research reported in this paper attempted to determine what constitutes superior teaching, and what manipulable extrinsic incentives exist in education to motivate teachers to become superior teachers. The project additionally tried to determine the degree of consensus among teachers and administrators on these issues. Finally, equity, or fairness, was considered in relation to accountability, that is, whether teachers felt it was fair to be rewarded for exemplary teaching performance. A sample of 184 teachers and 18 building administrators from 18 New York state public schools were asked to respond to a nine-page questionnaire. The questionnaires were returned by 75 percent of the teachers and 89 percent of the administrators. Nearly half the teachers in the study responded that it is fair to award teachers salary increments on a performance contingency basis. With the equity notion applied, pay-related items and recognition seem to hold the most promise for implementation. (Author/MLF)

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TEACHER PERFORMANCE MOTIVATION

by Steve M. Farrar, Ph.D.

EA 013 872

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Each year this nation undergoes many long, expensive and disruptive strikes by educators. The reasons for these walk-outs are many and complex. Simultaneously, there are frequent and often vituperous claims by the public of a poor educational system. Teachers are the most frequent butt of these claims. They are called lazy, incompetent, unfit and just about any succession of terms which will vent the public's frustration over the increasing costs of what it considers an increasingly inferior education. The demand for change is a demand for better performance from educators.

But what is performance? How does one measure it? How does one distinguish "better" performance from run of the mill performance? These questions are not new, yet they remain, for the most part, unanswered.

In the private sector, productivity is the analog and product quality control is frequently the solution. The monitoring and evaluating of products leads to the continual assessment of the process and the raw materials which make up the product.

Aware of this and not to be outdone by the private sector, education has seized upon the concept of product quality control (once again) and given it the stage name "accountability." As much as one might like to believe this surge toward accountability is new, history informs us, "not so." As Shakespeare said the world is a stage, and although the players change, the characters remain the same. The character "Quality Control" has been played by many imminently forgettable players, the most recent being accountability.

I have nothing against the character quality control. In the right place at the right time, it is indeed moving. However, I do believe quality control, as played by accountability is the wrong player for the wrong character in the wrong play.

I base this belief in part on history. Inevitably, the character has left a most lissatisfying sense of unfulfilled expectations. Although the role of quality control is an enduring character, there appear to be no memorable players. Perhaps this is because the character is too shallow, and lacks complexity and depth. Perhaps, as a result, our dreams our dashed when we find that he has been wearing elevator shoes, the sparkle in his eye is a contact lens, and his macho swagger is caused by weak knees.

But what is really wrong with accountability? Why hasn't the player been convincing? Let me try to answer these questions with a bit more rigor and a little less fancy.

Undeniably, accountability has been disappointing. Even California's Stull Act, perhaps the most imposing attempt by a state to implement an accountability system, is having little impact (Alkin and Baker, 1973). The reasons, as I perceive them, seem clear and an examination of the concept of quality control may make them clearer to all.

Quality control attempts to maintain certain strict standards for its product. This means there will be fewer complaints from disgruntled customers. By reviewing all phases of production and pinpointing weak procedures, persons, or materials, quality control determines causes of substandard products. Translated to the field

of education, students are the raw material, schooling is the process, and re-tooled students are the product. Apparently then there are two major areas which may be causes of substandard products: the raw student material, or the schooling process. But this appearance is not reality. In order for this appearance to approach reality, one must transport the assumptions governing the relationshipsof quality control in the private sector to the public sector. Two of these assumptions I believe are not transportable, and together present the major reason for the failure of accountability.

One assumption is that decisions regarding accountability can be made centrally, and the other is that one has control over the quality of the raw material. The second is most easily dispatched. It is precisely because education has no control over the raw student material that accountability focuses on schooling as the source leading to substandard student products. (Note the major efforts directed at curriculum revision and accreditation for personnel). When hopes seem to fail for improving personnel, teacher-proof curricula debut. When tightly controlled curricula appear, teachers complain of professional constriction. Data on teaching materials, techniques, and behaviors, administrative postures, organizational structures and the ever present "climate" are subjected to intricate covariate analyses in attempts to weed out the quality of the raw student material as a factor. On it goes, but it is recognized by most that the field of education can do little about the quality of the material sent them. It cannot send a new shipment of students back, nor can it pick its suppliers.

The second assumption is far more complex. The centrality of decision making seems simple enough in the private sector. The top management sets a production goal of certain quantity and quality, and the corporation gears its resources toward that goal. In the public sector, who makes the decisions and how they go about making them involve at least two factors which are to some degree entwined: political policy making, and innovation or change implementation. Policy making can be viewed as the development of the innovation while implementation is setting it in motion.

Decision making in education is not centralized. Teachers through their unionized efforts have gained enormous influence in educational decision making. Yet accountability has traditionally proceeded on the notion that someone in central authority will make some decisions, and of course, it follows that whoever makes these decisions has the authority to implement them. Yet if the history of implementing any kind of change in education tells us anything, it is that the authority assumption is false. Wildavsky and Pressman (1973) in their entertaining as well as insightful look at implementation make almost routine jest of governmental attempts to implement programs whose goals have been developed outside of those who will work them.

Hanson (1975) argues that "both the administrative structure and the corps of teachers have the tools and rationale to effectively disable change efforts of the other," (p. 34). A quick glance at collective bargaining over the past half century will verify his conclusion. It is not so much that we don't know anything about change or policy or quality control. Rather, it is, I believe, that the

introduction of accountability has not been perceived properly as a bona fide innovation with all the attendant implementation requirements. Among these is one which the accountability movement has ignored: teachers. As Hull (1974) states it, the "sine qua non of organized change" is to "involve school personnel as much as possible from the beginning" (p. 38). Giaquinta and Kerlinger (1973) find this requirement so pervasive, they call it the "general law of innovation." The reasons for involvement are many, but recognition of the power of school personnel to thwart imposed change is primary.

Another consideration is the threat which accountability poses to teachers. They are concerned about how they are going to be measured, on what criteria, and how the quality of the new student material is going to be accounted for. Furthermore, there are all those non-measurable variables that go on in the classroom every day. Unfortunately, their fears appear to be justified.

Most studies relating to teacher performance have tried to examine: (1) teaching techniques used in the classroom, (2) how time is spent in the classroom, and (3) student achievement scores. Heath and Nichols (1974) state that research on the "effect of techniques on achievement...are likely to be trivial" (p. 481). The use of student achievement scores is beset with the "myth...that learning is the result of teaching" (Baber, 1974, p. 23). How then, can teachers feel less threatened by accountability?

The key may be in the concept of accountability itself. Pincus (1976) believes accountability is a significant concept in as much as it recognized "implicitly a search for consensus" (p. 137). He con-

tinues that we will be on the threshold of "genuine accountability" when we have some "idea of what different people in an out of schools value" (p. 138).

Connecting Hanson, (1975) who believes there is a "balance of power" between teachers and administrators, with Pincus who feels the key to genuine accountability is "consensus" provides us with the major requirements for developing and implementing change: 1) involvement (shared power) of those affected; 2) consensus (agreement to support). Accountability traditionally has neither sought involvement nor consensus. Given the power of teachers to ignore change efforts, it is no wonder accountability has had little impact other than terror.

Assuming we want to move accountability toward involving teachers and gaining their consensus on how it is to be employed, for what should teachers be accountable? They have fought and will continue to fight against product oriented quality control measures. That is, student achievement will likely not be considered. That leaves us with the process of schooling. Teachers will not be held accountable for factors beyond their control, the building, room size, and the like. But perhaps there may be some hope for teacher behavior as an area for accountability criteria. Again, teachers have fought against this, but in part because the criteria were developed without their input; a violation of change implementation. A second reason has been the lack of understanding of teaching. It is couched in terms such as "art", and this offers little help in attempting a rational set of professional standards.

Perhaps then, if teachers were involved in the development of certain valued criteria and in the development of standards for those criteria as well as how they would be applied, then perhaps, teacher behavior or performance might be an acceptable platform for accountability. That would still leave the problem of professional criteria, but if teachers were involved extensively in the determination of these, there might be hope for approval. The recent work in NYS on teacher licensure, leads me to believe that the probability of setting professional standards is not so bleak. Instead of accountability based on student performance, then it would be based on teacher performance. But if we assume that some consensus can be reached on what constitutes good or superior teaching performance, will teachers be motivated to try and achieve these performance standards? Simply agreeing, that yes, these seem to be the characteristics of a superior teacher, does not mean that anyone is willing to achieve standards set for those characteristics.

Are there, then, "things" or "rewards" out there somewhere in the vast and open field of education which will motivate teachers to attain performance standards they consider successful or superior? Again, lets assume there are. But what motivates teachers to be good or better teachers is not enough. These motivators ought to be manipulable or alterable by whomever will eventually be evaluating the teacher's performance. The reason for this, of course is that if these motivators cannot be manipulated or given or not given, then why should anyone attempt to achieve a standard of performance in pursuit of something they desire, yet have little hope their efforts

will pay off?

This research, has tried to determine what constitutes superior teaching, and what manipulable extrinsic incentives exist in education to motivate teachers to become superior teachers. It has additionally tried to determine the degree of consensus among teachers and administrators on these issues. Finally, equity or fairness was brought into the picture to determine whether or not educators felt it was fair to be held accountable, that is, be rewarded with an incentive based on their teaching performance. By so doing, their power to frustrate change is respected. For the purposes of this paper, summary statements of important findings related to the determination of performance motivators will be given. A more thorough treatment of the performance motivators will then follow.

THEORY USED IN THIS RESEARCH:

March and Simon (1959) make the important distinction between those things which motivate a person to join an organization and those things which motivate a person to improve his/her performance in an organization. A participation motivator (or incentive) is one which attracts an individual to an organization and keeps him/her there as long as s/he conforms to minimum job requirements. These incentives have a fixed payoff. That is, everybody gets the same amount regardless of performance. Such inducements as retirement plans, annual salary increments, medical insurance and the like generally function as participation incentives.

Performance motivators (or incentives) are distinguished by a

contingency payoff. That is, the amount of this incentive one receives is contingent on one's performance. Piece work, and merit pay, function as performance incentives.

Since I am interested in performance motivation, some method must be used to differentiate performance motivators from participation motivators. Expectancy theory was the tool selected for this task. By determining performance motivation, expectancy theory purports to identify those incentives for which an individual will try to improve his/her performance. Nadler and Lawler (1979) believe expectancy theory, although somewhat complex, offers the most promise of any present theory in determining the performance motivation of individuals.

Expectancy theory is a multiplicative theory of three major components: $E \rightarrow P$ or expectancy to perform, $P \rightarrow O$ instrumentality, and V or valence, the attractiveness of certain outcomes. These three components are generally multiplied in the following manner to produce a performance motivation score:

$$\text{EFFORT} = E \rightarrow P \times \Sigma\ (P \rightarrow O \times V).$$

The $E \rightarrow P$ measure is generally scaled from 0 to 1 or no expectancy of being able to perform to complete expectancy of being able to perform. $P \rightarrow O$ is commonly scaled from 0 to 1 or no expected relationship between one's behavior and certain outcomes to complete assurance of performance leading to an outcome. Valence is generally scaled from -1 to +1 or from very unattractive to very attractive.

Based on the scoring and scaling methods used, a standard is set for a minimum performance score. Anything below this score is

not considered a potential performance motivator. In this research, in order for an incentive to be considered a potential performance motivator, the individual must have at least a moderate E→P (expectancy of being able to perform) and must find an outcome very desirable.

The standard expectancy model is that shown in Figure 1.

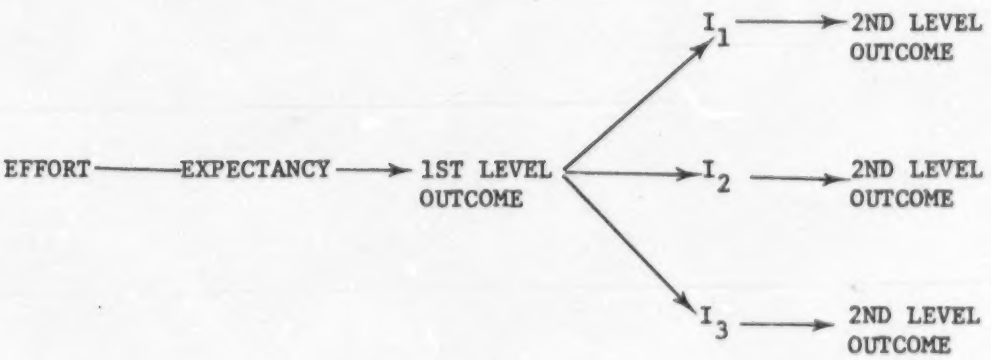

Figure 1

Standard Expectancy Model

A first level outcome is some incentive which appears to be manipulable. Second level outcomes are desirable or undesirable consequences of gaining first level outcomes.

Because this research is attempting to find those motivators which have potential for performance motivation, the instrumentality component will equal 1. That is, it will be given that successful performance at the required level leads to acquiring 1st level outcomes. The initial phase of the research procedure suggested that teachers would assume this condition existed. Instrumentality of the 2nd

level outcomes is also assumed. Because teachers and administrators generated the 2nd level outcomes from the 1st level outcomes, instrumentality is given as 1. This procedure is supported by Mitchell and Biglan (1971) and Graen (1969) who stressed that work role outcomes be closely linked to the work role.

Thus our model, mathematically at this point, looks like this:

$$M = E \rightarrow P \ (\Sigma V)$$

$E \rightarrow P$ or expectancy to perform is also changed in the modified model. Teachers and administrators both felt it wise to have a single measure of ability which was not based on any particular outcome, but on all the outcomes. Normally, this measure of perceived ability is cited separately for each first level outcome. This often confounds the valence of the first level outcomes with perceived ability. In order to avoid this problem, and because subjects stressed the desirability of a single measure of ability tied to improved performance, but independent of particular first level outcomes, this was adopted.

The final modification of the model is the introduction of the equity notion, i.e. should successful attainment of the 1st level outcome be contingent on performance. This schematically alters the model to that shown in Figure 2.

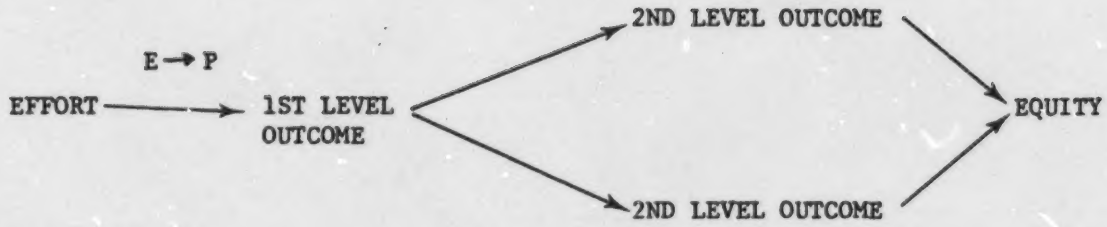

Figure 2

Modified Expectancy Model

Mathematically, this is represented as:

$$\text{EFFORT} = E \longrightarrow P \quad (\Sigma V) \text{ equity}$$

Here, equity has the values of zero or one, where zero signifies the successful attainment of the 1st level outcome should not depend on performance, while one signifies it should.

The equity measure was introduced into the formula because it is clear that equity influences motivation to perform (Porter and Lawler, 1968; Lawler, 1973). Just how equity enters into the picture, however, is unclear.

Is it fair or equitable that what one receives be contingent on what one does? Equity theory tells us that an individual is motivated to change an inequitable situation and that the strength of the motivation to change this inequity "varies directly with the perceived magnitude of the imbalance" (Lawler, 1973, p. 18).

During the early phases of the research, subjects repeatedly brought up equity as an issue. Is it fair to get a reduced teaching load if a teacher shows consistently superior performance? The equity issue could not be separated from measures of performance,

performance criteria or who was to do the evaluating. Still, I believe that equity plays an important part, and in the case of educators, because it is so virulent an issue, it might be measured by a yes or no to a "should this depend on performance" situation. By asking individuals if outcomes should be dependent on performance one can get a measure of perceived "fairness" or equity. If a person does not perceive an equitable relationship, then s/he is likely not to be motivated in a performance or task oriented way. That is, they are not likely to opt for the "increasing inputs" method for balancing the equity equation.

Thus, in my model, a potential performance motivator is one in which there is at least a moderate perceived ability to perform in order to successfully attain some 1st level outcome, where the contingency of performance to attaining the 1st level outcome is considered equitable and where 2nd level outcomes are attractive.

This means that a person who finds the consequences or outcomes of a particular incentive to be attractive, feel they have the ability to perform at the necessary level to attain the incentive, and find this an equitable work demand, will be motivated to perform at the level required to attain the incentive.

METHODOLOGY AND INSTRUMENT DEVELOPMENT

The research design consisted of four phases: 1) Pre-pre pilot, 2) Pre-pilot, 3) Pilot, and 4) Research sample.

PRE-PRE-PILOT (PHASE 1): The primary objective of this phase was the development of the questionnaire items. This included 1st level out-

comes, 2nd level outcomes, and an appropriate equity measure per incentive and the development of a procedure to assess "ability."

Sources used were 1) items negotiated in teacher contract bargaining, 2) research on what teachers value, and 3) interview/work sessions with teachers and administrators.

Items negotiated in teacher contract bargaining and those things which teachers value were used as prods during the interview/work sessions with teachers and administrators. Teacher contract bargaining items produced those items which both teachers and administrators felt were publically contractable. Additionally, it produced items which act as surrogates for non-contractable desires. A surrogate is something that acts in place of something else. If you can't get one then you ask for something that approximates it. For example, "smaller class size" may act as a surrogate for "more time teaching, less time in mob control". It is difficult for teachers to ask for more instructional time, because there is no simple way of doing it. But by asking for smaller class size, they may be asking for the surrogate of increased teaching time as well as others. The bargaining notion of surrogates is similar to the 2nd level outcomes (or the outcomes associated with an incentive) used in expectancy research.

A review of other research relevant to teacher desires was done to find specific non-contractable teacher desires (such as administrative support).

Interview/work sessions with teachers and administrators were included as part of the research design in order to insure the

relevance of the items to the subjects. Items selected from negotiated contracts and from psychological and sociological studies of teachers desires could act as prods during the interview sessions. It was clear, however, that interviews were needed to anchor the items to the subject's field of reality. That is, to determine items that subjects felt were important and real concerns of teaching. This use of subject generated valence outcomes was strongly supported by Matsui and Ikeda (1976). From their study of 154 high school seniors, they concluded that: "a) self generated outcomes are more relevant for the subjects than standard list outcomes; and b) having subjects generate their own outcomes...may be more effective as a means of obtaining expectancy theory measures than is the use of a standard list of outcomes" (p. 289).

After the outcomes item pool had been developed, it was grouped into 6 sub-categories:

1) Pay related
2) Schedule related
3) Classroom related
4) Professional improvement related
5) Personally/Socially related and
6) Work-load related.

Increased salary is an example of Pay related outcomes. Holidays is an example of Schedule related outcomes. Improved student learning is an example of Classroom related outcomes. Attendance at professional conferences is an example of Professionally related outcomes. Extended travel is an example of Personal/Social related outcomes. Less homework is an example of work load related. Subjects (teachers and administrators in the interview/work session) then rank-

ed the items in each group. They were asked to rank the items from the least important to the most important. The top twenty-five in each group were retained for further refinement. Parker and Dyer (1976) in a study of U.S. Naval officers found that the ranking of outcomes and the subsequent selection of the higher ranked items for inclusion in the final survey was conceptually and methodologically useful. This usefulness is clear when one considers that a single important outcome may outweigh all other outcomes (negative included) for any particular incentive. The ranking of items insured that only the most important negative and positive outcomes were included in the incentives outcome expectancy model.

The Pre-pre-pilot sample consisted of 7 teachers and 3 administrators. Four teachers were elementary (K, 3, 5, 6), one teacher taught jr. high English and the two remaining teachers were high school teachers (10th grade math and 11th grade chemistry). The administrators were two elementary principals and one high school principal.

PRE-PILOT (PHASE 2): The primary objective of this phase was the development of an acceptable questionnaire format and appropriate item wording. It consisted of: 1) consultation with graphic artists and others familiar with page formating, 2) interviews/work sessions with teachers and administrators, and 3) readings on questionnaire development. A secondary objective was the continued refinement of items via ranking and rewording.

Three members of the pre-pre-pilot phase were held over to assist with the pre-pilot phase. This was to provide some continuity between the phases and yet allow for sufficient independence

for the generation of new ideas. Single and group interview/work sessions were held, with group interviews not exceeding four subjects.

Four rounds of interview/work sessions were held with the subjects. Subsequent to each interview round (one round equals sessions with all nine subjects) a questionnaire format and item wordings were developed. These were presented at the start of the succeeding sessions with subsequent reformating and rewording. Subjects were asked to delete the least important items from each format in an attempt to reduce the considerable size of the instrument.

PILOT (PHASE 3): The major objective of this phase was to test the instrument on an independent sample of teachers and administrators in an effort to "clean" the instrument for the research sample. It was hoped that all remaining problems in wording, formating, directions, time and the analysis of data could be resolved in this phase of the research design.

Twenty-two teachers and 9 administrators were selected from a school district in Western Michigan. Each was individually and personally contacted before the instrument was delivered. The researcher then hand delivered the questionnaire to each subject. Following the completion of each questionnaire, interviews were held with each subject. The interviews averaged approximately 40 minutes each and were intended to flush out any remaining quirks in the instrument.

A final version of the questionnaire was completed and submitted

to all members of the pre-pre-pilot and pre-pilot phases. It was acceptable with no changes. The teacher questionnaire was seven pages in length while the administrator questionnaire was 9 pages.

The pilot data was coded, key punched and run on the IBM 370. Some data analysis was carried out with the objective of ironing out any problems connected with the use of the SPSS package.

RESEARCH SAMPLE (PHASE 4): This phase of the research was the result of the work of earlier phases and was intended to answer the major research questions of the study.

SAMPLE: A four county area in Central New York State was selected for convenience. The counties chosen were: 1) Broome, 2) Chenango, 3) Otsego, and 4) Madison. Financial, material and time/cost restraints precluded any other method of region selection. Although generalizations from this research can technically go no further than the four county region, plausible inferences may be made about teachers and administrators in general.

Using the Directory of Public Schools and Administrators New York State 1978-79, fourteen school districts were randomly selected. A sample of eighteen schools was targeted as the desirable number from which to draw the teacher and administrator sample. These eighteen schools amounted to 10% of the number of schools in the four county region, and this percentage was selected for convenience. Twenty-five schools were actually selected in order to allow for the contingency of some schools declining to participate. Two schools engaged in teacher strikes, declined participation. Eighteen schools from this twenty-five did elect to participate. The principal or vice

principal and 25% of the number of teachers in each school were selected as the research sample. This resulted in 184 teachers and 18 building administrators. By arranging our sample in this fashion, the sample could later be broken down by districts and schools.

CONTACTS AND DATA COLLECTION: Each principal was telephoned, informed of the study and asked to participate in the study. Those who consented agreed to send a list of all teachers in their building. Teachers on any extended leave were marked on these lists and subsequently were excluded from the selection process. Thirty percent of the teachers in each building were selected. This represented a 5% over selection. Only 25% of the teachers in each building were to be given a questionnaire. This was to insure the likelihood of getting the twenty-five percent desired from each school in the event of teacher absences. In every case, any fraction of a person was counted as a full person. For example, if a school had 21 teachers, 25% of that would be 5.25, thus 6 teachers would be selected from that school.

Appointments were made via the initial call or a second call. The researcher drove to each site, met with the principal or the vice principal of each school and discussed the research and the data collection instrument. As many teachers as possible were contacted personally at each building. In some cases, teacher meetings were used as the source of contacts. In other cases, teachers were sought in their rooms, the lounge, the office, and the playground.

Each subject received a hand delivered letter, a questionnaire and a stamped addressed envelope.

Non-respondents initially were contacted via a follow-up phone call, and finally with two separate letters. This completed attempts at data collection.

The follow-up letter followed suggestions by Bouchard (1976) to include experience that subjects could relate to (i.e. peer educators worked on the development of the questionnaire, and the researcher had many years experience as a teacher). Nevin and Ford (1976) suggested that questionnaires not include a return date. This advice was also followed.

The overall return rate of teachers and administrators combined was 76.24%. The overall return rate for teachers alone was 75% and for administrators alone it was 88.89%.

The teacher questionnaire was composed of 5 major question elements: 1) equity, 2) teacher characteristics, 3) performance criteria, 4) ability measure and 5) 1st and 2nd level outcome valence measures. The administrator had two additional and one replacement element. The two additional elements were 1) manipulability, and 2) bureaucracy characteristics, and administrator characteristics replaced the teacher characteristics.

WHAT CONSTITUTES A POTENTIAL PERFORMANCE MOTIVATOR?

Some minimum score was determined for each first level outcome in order for it to be considered a potential performance motivator. In order for a first level outcome to be considered a potential performance motivator, the subject must feel at least a moderate

capability to perform at the required level to attain a very desirable outcome. This translates into 50 (score for perceived moderate capability) times +1 (very desirable) times the number of second level outcomes per first level outcome. Alternatively, a subject must feel a high probability (100%) of successfully attaining a moderately desired outcome (sum of .5 per outcome). The scores are the same, and both methods are conceptually acceptable.

DEGREE OF CONSENSUS ON PERFORMANCE MOTIVATORS:

Mitchell and Biglan (1971) and Graen (1969) stress the importance of linking work role outcomes to the work role. Teachers and administrators were thus the major source of incentives. They both agreed that the incentives used in the study were relevant to their work role. Lortie (1975), Rosenberg (1957), Negotiations Data Book (1974), Project PAX, and other bargaining research analyses (Stinnet, Kleinman and Ware, 1966; HEA Research Publications 1966, 1972) were also used to offer alternatives, fill in gaps, etc., in the development of the incentives list. This list was subsequently reduced via a negative ranking procedure. That is, teachers and administrators were asked to rank the least important or desirable incentives to teachers. Such a procedure was used many times to finally arrive at the incentives used in the questionnaire.

This study's expectancy model requires that one find the desirability of first level outcomes (via 2nd level outcomes) and multiply this value times the ability measure to determine if the first level outcome has potential for performance motivation.

For each first level outcome, teachers and administrators were

asked to list secondary outcomes or consequences of having that first level outcome. For example, given an incentive or first level outcome such as field trips, teachers and administrators were asked to list important consequences of having field trips. For each of these consequences, each subject was to rate the desirability of that consequence. The consequences of field trips finally included in the questionnaire were: "Improved learning for students", "Provides a real learning environment for some subjects", "Gives everyone time away from the classrooms". The range and scoring were as follows:

very desirable	undesirable	doesn't matter	desirable	very undesirable
-1	-.5	0.0	+.5	+1

The scores for each second level outcome were added per first level outcome. This score was then multiplied by the ability score of each subject. T-tests were then computed to determine the degree of consensus among the groups.

Those items which show a significant different ($p < .05$) were considered items for which there was a real disagreement between administrators and teachers. Those items which showed no significant disagreement were defined as showing consensus.

EXAMPLE OF SCORING PROCEDURE:

(All criteria for superior teaching, and all 2nd level outcomes were generated by teachers and administrators).

The respondent first ranked 5 of 15 superior teacher

characteristics to identify his/her performance criteria. Then the respondent was to answer the following question to derive an E → P measure, or measure of perceived ability to perform as their performance criteria indicated: "Above you checked Five characteristics of a superior teacher. In general, how Capable are you of being like this superior teacher?

Not at all	Very Little	Moderately Capable	Very Capable	Completely Capable
0%	25%	50%	75%	100%

Let's assume the respondent felt "very capable". This translates into a score of 75% for E → P.

The respondent then answered a series of questions to determine the level of desirability (Valence) of the second level outcomes associated with a given first level outcome. For example, the respondent was asked to answer the question in Figure 3.

The researcher, using the valence range of (-1 very undesirable, -.5 undesirable, 0.0 doesn't matter, +.5 desirable, +1.0 very desirable) coded each consequence as shown. Following the expectancy model:

$$E \rightarrow P \quad (\%V)$$

$$E \rightarrow P = 75\%$$

$$V = (.5) + (1) + (.5) + (0) = 2.0$$

$$E \rightarrow P[\Sigma (V)] = 75 \times 2 = 150.$$

This would be the score described by the raw data.

How desirable is each of these consequences of having a REDUCED TEACHING LOAD?

	Very Undesirable	Undesirable	Doesn't Matter	Desirable	Very Desirable	
You have less work				✓		50-54 .5
Allows you to give better student evaluations					✓	55-59 1
Allows you to give more individual attention to your students				✓		60-64 .5
Allows you to develop a deeper personal rapport with students			✓			65-69 0

Figure 3

Example of Questionnaire Scoring

In order for it to be a potential performance motivator, $E \rightarrow P$ must equal at least 50, and each of the 2nd level consequences must equal 1.

Thus $E \rightarrow P = 50$

$$V = (1) + (1) + (1) + (1) = 4$$

$$E \rightarrow P[\Sigma (V)] = 50x4 = 200.$$

In this example, reduced teaching load would not be considered a potential performance motivator because the minimum required score of 200, and this hypothetical respondent had a score of 150. To this, then, an equity measure was attached.

The equity measure was a simple yes or no answer to whether certain incentives (1st level outcomes) should be contingent on teacher performance. For example, the teacher or administrator would answer yes or no to: Should getting a travel allowance depend on how well a teacher does his/her job? The issue of whether to use a scale of appropriateness rather than a dichotomous measure for this variable was addressed at each phase of the study except the research sample phase. Each phase study sample preferred the use of a dichotomous measure for this variable.

The incentives used in the equity question are the same incentives about which an ability measure and outcome valences are determined. The result is that for each incentive, we shall have an equity measure, one ability measure for all incentives and a valence measure.

FINDINGS:

For the purposes of this paper, I will summarize several findings related to the determination of performance motivators. The study

did find a great deal of consensus among teachers and administrators on the criteria for superior teaching performance. The few differences found appeared related to the respective teacher training emphases in elementary and secondary education programs (e.g. elementary teachers' greater concern for instructional technique and secondary teachers' greater concern for subject matter competence).

There was simply overwhelming consensus on 2nd level outcomes. Teachers and administrators both clearly understood the desires of teachers. Some differences were found, and although statistically they could be attributed to random variance, an examination of differences revealed a pattern which indicated a conflict between administrative authority and teachers' professional authority. The most desirable outcomes of teaching for teachers in this study appear to be those related to: 1) job security, 2) professional/classroom relationship with students, 3) the way they spend their professional time, and 4) their family or home life. These findings tend to support similar findings by Lortie (1975) and Sergiovanni (1967).

POTENTIAL PERFORMANCE MOTIVATORS:

The expectancy formula given as the modified version of expectancy theory for this research was used to determine administrators' and teachers' preceptions of 1st level outcomes that might act as performance motivators. That is, Effort to Perform = $E \rightarrow P$ (ΣV), where $E \rightarrow P$ is a person's perceived ability, and V is the desirability of the outcome to the individual.

The score for "How Capable" teachers felt about being able to perform as a superior teacher (self-defined by performance criteria)

was multiplied times the score equal to the sum of the valences for each first level outcome. Those mean scores which were above the earlier defined level for each first level outcome indicated potential performance motivators. The operational level above which a potential performance motivator's score must lie was determined by multiplying 50 times 1 times the number of 2nd level outcomes associated with any first level outcome. This translates into: a performance motivator is one in which the person feels he/she has at least a moderate capability (50) of successfully attaining something very desirable (1). It may also be construed as someone having a certainty of attaining an outcome (1.00) which is moderately desirable (.5). Both methods are appropriate for assessing performance motivation and both result in the same score.

POTENTIAL PERFORMANCE MOTIVATORS AT THE SECONDARY LEVEL:

Table 1 shows those first level outcomes which have sufficiently high scores to be considered potential performance motivators. Also shown is the percentage of secondary teachers who felt it was equitable. Equity, as used here, means one's belief that receiving an outcome should or should not depend on teacher performance. It is a measure of "fairness", or "Is it fair that an outcome be used in such a manner". There are twelve potential performance motivators for secondary teachers, while Table 2 shows secondary administrators perceive there to be only three. Those three are also ones which the teachers' scores showed to be potential performance motivators. They are: 1) Recognition for superior teaching, 2) Insurance, and 3) Cost

of living allowance.

Several of the potential performance motivators for teachers show a large percentage of teachers believing it is equitable for a particular 1st level outcome to depend on teacher performance. Except for recognition for superior teaching, all of these potential performance motivators with a high percentage of equity (more than 25%) are in some way related to pay. This may reflect the economic conditions of high inflation and deep recession during which data were collected. That is, pay related items could have been pressing due to the national economic climate. It may also reflect the general contention of many motivational theorists (Lawler, 1973; Lawler and Nadler, 1979) who believe pay manipulation holds the greatest promise for performance motivation.

ADMINISTRATIVE MANIPULABILITY:

Having six potential performance motivators from secondary teachers with at least a 25% equity approval, we now need to know whether secondary administrators feel they have the power to manipulate these potential rewards. Table 3 shows the degree of manipulability administrators feel they have over each of these six potential performance motivators.

For each of these six items, at least 25% of both secondary administrators and secondary teachers feel they are equitable. Of them all, Recognition for Superior Teaching seems to hold the most promise. It is felt to be equitable by 70% of the secondary teachers, and by 87% of the secondary administrators. Eighty-seven percent of the administrators also feel that it is an administratively manipulable

Table 1

Secondary Teachers' Potential Performance Motivators

POTENTIAL PERFORMANCE MOTIVATOR	EQUITY*	TEACHER MEAN	REQUIRED SCORE
Recognition for superior teaching†	70%	151	150
Annual salary increment†	45%	130	100
Salary increment for advanced degree†	35%	203	200
Tuition reimbursement†	30%	115	100
Extra pay for extra duty†	28%	164	150
Travel allowance†	28%	102	100
In-school preparation time	21%	322	300
Teacher's aide	18%	207	200
Cost of living allowance	18%	212	150
Insurance	17%	208	150
Field trips	17%	153	150
Secretarial support	14%	102	100

* % of teachers who believe getting this incentive should depend on the teacher's performance.

† potential performance motivators (more than 25% equity).

Table 2

Secondary administrators' potential performance motivators

POTENTIAL PERFORMANCE MOTIVATORS	ADMINISTRATORS MEAN	REQUIRED SCORE
Recognition for superior teaching	151	150
Insurance	164	150
Cost of living allowance	155	150

reward. It appears then that there is real potential for the use of recognition as a performance motivator. There is agreement on it as a potential performance motivator, and there is consensus on its fairness to be so used. In addition, administrators feel they have the power to manipulate this reward. Although there is both consensus and administrative manipulability on the issue of the potential use of recognition as a performance motivator, exactly how this might be operationalized is a matter for continued thought.

Annual salary increment would also be an attractive incentive. It is felt to be equitable by nearly half of the teachers and exactly half of the administrators.

POTENTIAL PERFORMANCE MOTIVATORS AT THE ELEMENTARY LEVEL

Table 4 shows those first level outcomes which have a sufficiently high score to be considered a potential performance motivator to elementary teachers and elementary administrators. There are 5 potential performance motivators for elementary teachers, while there are 9 for elementary administrators. There are three first level outcomes for which both groups' mean scores indicate potential for performance motivation. They are: 1) Insurance, 2) Cost of living allowance, and 3) Annual salary increment. Of them all, only annual salary increment (45% equity) shows more than one fourth of the teachers believing it to be equitable.

Thirty-eight percent of the administrators feel annual salary increment is equitable, and 50% feel it is administratively manipulable.

This would indicate that the performance motivators sought by

Table 3

Potential performance motivators at secondary level

	Teacher Equity	Admin. Equity	Admin. Manipulation*
Salary increment for advanced degree	35%	50%	50%
Tuition reimbursement for grad work	30%	25%	50%
Extra pay for extra duty	28%	38%	50%
Recognition for superior teachers	70%	87%	87%
Travel allowance	28%	38%	38%
Annual salary increment	45%	50%	25%

* Manipulation here means administrators' beliefs that they can control or have the power to manipulate these incentives. It does not mean that individual's administrative authority to control, but rather the school system's administrative component and its capacity to manipulate the incentives.

Table 4

Elementary teachers' potential performance motivators

POTENTIAL PERFORMANCE MOTIVATORS	EQUITY	TEACHERS' MEAN	REQUIRED SCORE
Teacher's aide	20%	202	200
Tuition reimbursement	9%	112	100
Insurance	7%	170	150
Cost of living allowance	13%	174	150
Annual salary increment	46%	122	100

Elementary administrators' potential performance motivators

POTENTIAL PERFORMANCE MOTIVATORS	EQUITY	ADMINISTRATOR MEAN	REQUIRED SCORE
Salary increment for advanced degree	25%	211	200
Paternity/maternity leave	12%	202	200
In school prep. time	50%	303	300
Extra pay for extra duty	38%	166	150
Travel allowance	25%	102	100
Insurance	25%	217	150
Cost of living allowance	12%	188	150
Annual salary increment	38%	119	100

this research have little use at the elementary level although annual salary increment appears to have promise, in that elementary administrators and elementary teachers have reached a consensus on annual salary increments: (1) potential performance motivation and (2) its fairness to be used, and it also appears to be administratively manipulable to half of the administrators. The fact that there is only one such item is discouraging. It may be that if this item was successfully operationalized, it might influence elementary teachers' feelings about the other potential performance motivators which showed little equity support. It is also interesting to note a kind of reversal, at least in numbers, of the potential performance motivators found at the secondary and elementary level by administrators and teachers. At the secondary level, administrators' scores indicated only three performance motivators and teachers' scores revealed 12 (excluding equity score). At the elementary level, administrators' scores revealed 8 potential performance motivators while teachers' scores showed 5. It seems almost as if at the secondary level teachers are more likely to consider potential performance motivators, than is their administrator for them. While at the elementary level, teachers show less concern for performance motivators than do their administrators.

CONCLUSIONS:

Teachers and administrators have agreed on what is likely to induce performance motivation, and administrators have indicated those that they feel they have the authority to manipulate. Pay related incentives appear to hold the most potential when considering both elementary and secondary teachers.

The next important piece of required knowledge for a consensus based program is the fairness of using the performance motivators as intended. That is, is it fair to reward or not reward persons with certain incentives based on their teaching performance? Equity becomes important at this point because consensus has maintained the balance of power between administrators and teachers until now. At this point, administrators' perceived authority could induce them to implement a restructured reward package based on performance criteria, highly desired outcomes, and potential performance motivators. This would not respect the professional authority teachers perceive (not obtaining their consent), and thus fail to maintain the balance of power. Teachers can balance the scale by addressing the equity issue. Those incentives which teachers believe to be equitable would then be those for which teachers have given their consent to be used as motivators based on teaching performance.

With the equity notion applied, pay related items and recognition seem to hold the most promise for implementation. It can be argued (and has been by Wildavsky and Pressman, 1973) that much greater consensus is needed at each decision point in order for some change to be effectively implemented. A consensus level of 25% for equity will in all initial practicality be much too small. Taking the most equitable item for elementary teachers (annual salary increment at 46%), one finds that it is also "very desirable" to a majority of teachers, and in addition, administrators believe they have the authority to manipulate it. This seems to be the most desirable performance motivator to test implement at the elementary level.

At the secondary level, recognition is believed equitable by over 2/3 of the teachers, and nearly nine out of ten administrators believe they have the authority to manipulate it. Because it just barely qualifies as a potential performance motivator (exceeds required minimum by one point), and because it is not considered "very desirable" by a majority of the secondary teachers it may not be a good item to test implement.

The item which is considered "very desirable" by a majority of the secondary teachers, and is deemed equitable by nearly half (45%), and shows a 30 point margin with the required minimum score for a potential performance motivator, is "Annual Salary Increment". This same item is the preferred test implementation item at the elementary level.

This may be shocking to those who have watched the union movement grow in education. Unions have fought long and hard for many years for benefits such as an annual salary increment. This constitutes a form of financial security which is guaranteed to teachers. To have, as this research shows, nearly half the teachers in the study respond that it is fair that annual salary increment be awarded to teachers on a performance contingency basis, is clearly something unpredicted. It may indicate the conversion of educators' loyalty to "localism" from "cosmopolitanism" or that professional goals have fewer and shallower roots than suspected. Lortie (1975), among many, speaks to the conservatism of teachers and administrators, and calls it an ethos of conservatism. He believes this ethos develops in many ways,

and particularly in the recruitment of teachers to the field. It may be that this ethos of conservatism is more deeply ingrained in the field of education than the parade of the union movement would have one believe. This "ethos", or "localism", or whatever one wishes to call it, may also simply be the result of sampling in Central New York, a relatively "conservative" region. Another possible explanation would be the "Iron Law of Oligarghy". That is, in this case, as unions grow, the leaders slowly develop their own subculture of norms, desires, etc. which are different from those of the people they are supposed to represent. Our knowledge of teacher desires comes from the bargaining table, or via the union. This research then may report evidence that unions are not representing their members, but the union leadership instead.

One other possibility concerns the pervasive belief in meritocracy which exists in this country. How else could teachers or administrators answer the "is it fair" question? For the principle of meritocracy to hold, one must receive rewards based on what or how well one performs. And, as we all know, people should be rewarded for merit, for what they do, not some less scrupulous criterion such as blood relative (nepotism).

Nevertheless, "Annual Salary Increment", on the basis of this data would have the greatest chance for successful implementation, given that the balance of power concept is observed throughout the implementation process. The implementation of a single performance motivating item, however, may not have sufficient influence to appreciably alter one's behavior. How many, or to what extent performance motivators may

be effectively introduced into a system is unknown at this point. It may be that the results of the use of a single performance motivator such as "Annual Salary Increment" will determine the efficacy of using performance motivation at any level of application. Although the traditional barriers to implementation, primarily consensus, can at least be adumbrated by the procedures used in this research, the difficulties associated with developing accountability based on consensus may have been treated too lightly by this research. Presumably, no social research can consider all potential variables. The variable of authority and who has it has not been sufficiently considered. Who has the real authority: teachers, administrators, the citizenry, or the elected representatives (school board)? In the process of determining an institution's accountability, toward whom is the accountability directed: professionals (teachers), administration, or the citizens?

In this study, I have tried to show that administrative authority and teachers' professional authority can be balanced to achieve an equitable balance of power and an equitable system for improving teaching performance. I have not included the effects of the authority of the state, and ultimately the people on this balance. I can speculate that the populace, as an increasingly more informed client, may eventually distribute and delegate authority according to some perceived needs. The populace is not merely a client, however, it is also a consumer, and a consumer with ever increasing knowledge of its power. How this power will merge or conflict with the State's present constitutional authority in addition to the developing professional authority of teachers is unknown.

The motivators used in this study are all extrinsic. Although many of the consequences or 2nd level outcomes are intrinsic, or provide intrinsic satisfaction, all 1st level outcomes, or motivators are extrinsic. Lortie (1975) claims that all core desirable rewards to teachers are tied to "reaching" students, an intrinsic psychic reward. This study did not ignore these findings, but rather, because it was an administratively centered piece of research, it sought rewards which were administratively manipulable, and thus extrinsic. The use of 2nd level outcomes provided the opportunity for intrinsic rewards to become visible, but the success of this is open to argument. In several instances, there are approximations of Lortie's "reaching" students, such as "increased student learning", "better student evaluation", and the like. Through 2nd level outcomes, teachers were given some opportunity to express their desire for intrinsic rewards. Because it was a "closed" questionnaire, that is, there was no room for open ended responses, teachers and administrators were constrained on how they interpreted the 2nd level outcomes. Thus, although all 1st level outcomes were purposefully extrinsic and represented an attempt to find manipulable rewards, intrinsic desires were not altogether ignored.

A second concern relates to the body of research on teacher behavior. Most of this research indicates that the good or superior teaching characteristics cited as important by this research have no direct effect on student performance. Thus, how does one argue for paying or in some other way rewarding teachers for behavior which has no effect on student performance? If one takes the stance that society

is paying for the product, that is, student performance, then there is no good argument for restructuring the reward system based on teacher behavior. However, if one takes the stance that society is paying for the process, that is, teaching, then one could argue that standards of behavior or performance should be set, and that successful attainment of these standards be rewarded. Such a reward system might provide incentives to individuals within the teaching profession to improve their performance to standards agreed upon by the profession as a group. If Lortie (1975) is correct in his assertion that teachers' conception of performance as "individualistic" poses the most serious threat to teaching as a profession as a whole, then the development of procedures or methods for considering teaching performance level from a collective or group perspective may hold some hope for sustaining the profession as a whole.

It behooves researchers and consumers of research to keep in mind that any research activity must by necessity narrow its focus, both theoretically and methodologically. This research tends to examine educational organizations from a social/psychological point of view, with an emphasis on individual motivations and influences within an organization. A structuralist approach would take a fundamentally different perspective, and attempt to relate its data to theories concerning the effects of technology on structure, or structure and its effects on member behavior and the like. Thus the theoretical stance or perspective of this research has affected the manner in which data were interpreted.

In Kuhn's (1962) terms, Organizational Research is in the "pre-paradigm" stage, where a great deal of activity is unrelated and the literature gives one a sense of a helter-skelter approach. Organizational research may still be searching for basic principles upon which to build its fundamental and primary theory. Strike (1979) would say its theoretical hard core is not in order. Still this study does present the literature with new knowledge, and with knowledge that supports past research. If, as this researcher believes, consensus is the heart of accountability, this research finds that consensus can be achieved, and that the present field of education is capable of offering motivators which can induce its members to improved performance.

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